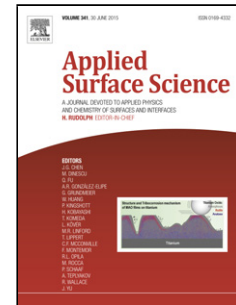


## Accepted Manuscript

Title: Oxidation behavior of AlMgB<sub>14</sub>-TiB<sub>2</sub> composite at elevated temperature

Author: Yu Lei Qing-sen Meng Lei Zhuang Shao-ping Chen  
Jing-jie Dai



PII: S0169-4332(15)00811-9  
DOI: <http://dx.doi.org/doi:10.1016/j.apsusc.2015.03.195>  
Reference: APSUSC 30072

To appear in: *APSUSC*

Received date: 9-11-2014  
Revised date: 28-3-2015  
Accepted date: 28-3-2015

Please cite this article as: Y. Lei, Q.-s. Meng, L. Zhuang, S.-p. Chen, J.-j. Dai, Oxidation behavior of AlMgB<sub>14</sub>-TiB<sub>2</sub> composite at elevated temperature, *Applied Surface Science* (2015), <http://dx.doi.org/10.1016/j.apsusc.2015.03.195>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

- The oxidation behavior of AlMgB<sub>14</sub>-TiB<sub>2</sub> composite was investigated at the temperature range from 600 °C to 1000 °C in air for 10 hours. The oxidation kinetics of this composite obeyed the parabolic law with an activation energy of  $176 \pm 20 \text{ KJ} \cdot \text{mol}^{-1}$ .
- The oxidation layer formed at the temperature of 700°C and above.
- The cross-section of the oxide scale was divided into three layers after oxidized at 1000 °C for 10 h.

Download English Version:

<https://daneshyari.com/en/article/5358235>

Download Persian Version:

<https://daneshyari.com/article/5358235>

[Daneshyari.com](https://daneshyari.com)